

Am29821A/Am29823A/Am29825A Am29921A/Am29923A/Am29925A

High-Performance Bus Interface Registers

Am29821A/Am29823A/Am29825A
Am29921A/Am29923A/Am29925A

DISTINCTIVE CHARACTERISTICS

- High-speed parallel positive edge-triggered registers with D-type flip-flops
 - CP-Y t_{PD} = 6 ns typical
- Buffered common Clock Enable ($\overline{EN}$) and asynchronous Clear input ($\overline{CLR}$)
- Three-state outputs glitch free during power-up and down. Outputs have Schottky clamp to ground
- I_{OL} : 48 mA Commercial, 32 mA Military
- Higher speed, lower power versions of the Am29821, Am29823, & Am29825
- Am29900A DIP pinout option reduces lead inductance on V_{CC} and GND pins

GENERAL DESCRIPTION

The Am29821A, Am29823A, and Am29825A Buffered Registers are designed to eliminate the extra devices required to buffer stand alone registers and to provide extra data width for address/data paths or buses carrying parity. The Am29800A registers are produced with AMD's exclusive IMOX* bipolar process, and feature typical propagation delays of 6 ns, as well as high-capacitive drive capability.

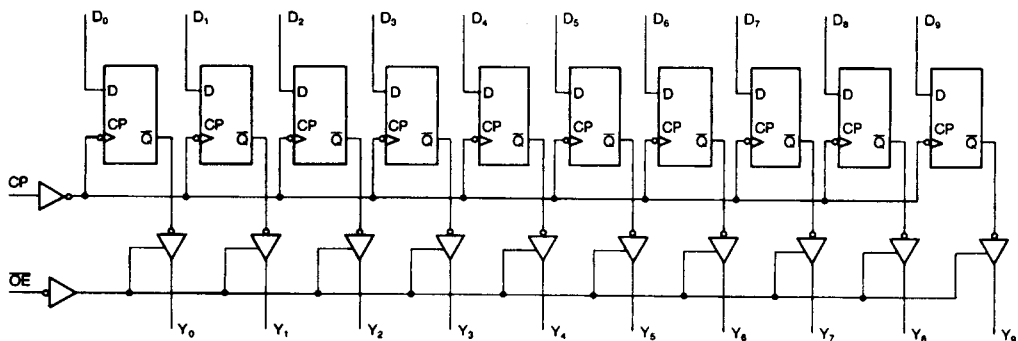
The Am29821A is a buffered, 10-bit version of the popular '374/'534 functions. The Am29823A is a 9-bit wide buffered register with Clock Enable ($\overline{EN}$) and Clear ($\overline{CLR}$) — ideal for parity bus interfacing in high-performance micro-programmed systems. The Am29825A, an 8-bit buffered

register, has all the 9-bit controls plus multiple enables ($\overline{OE}_1, \overline{OE}_2, \overline{OE}_3$) to allow multi-user control of the interface; e.g., $\overline{CS}$, DMA, and RD/ $\overline{WR}$. The device is ideal for use as an output port requiring high I_{OL}/I_{OH} .

The Am29800A registers are available in the standard package options: DIPs, PLCCs, LCCs, SOICs, and Flat-packs. In addition, a DIP pinout option, featuring center V_{CC} and GND pins, reduces the lead inductance of the V_{CC} and GND pins. The ordering part numbers for registers with this pinout are the Am29921A, Am29923A, and Am29925A; their pinouts are shown later in this data sheet.

BLOCK DIAGRAMS**

Am29821A



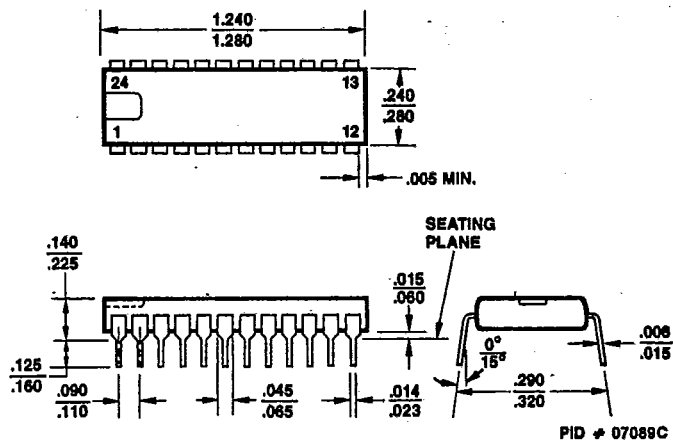
BD005501

*IMOX is a trademark of Advanced Micro Devices, Inc.
**See following page for additional Block Diagrams.

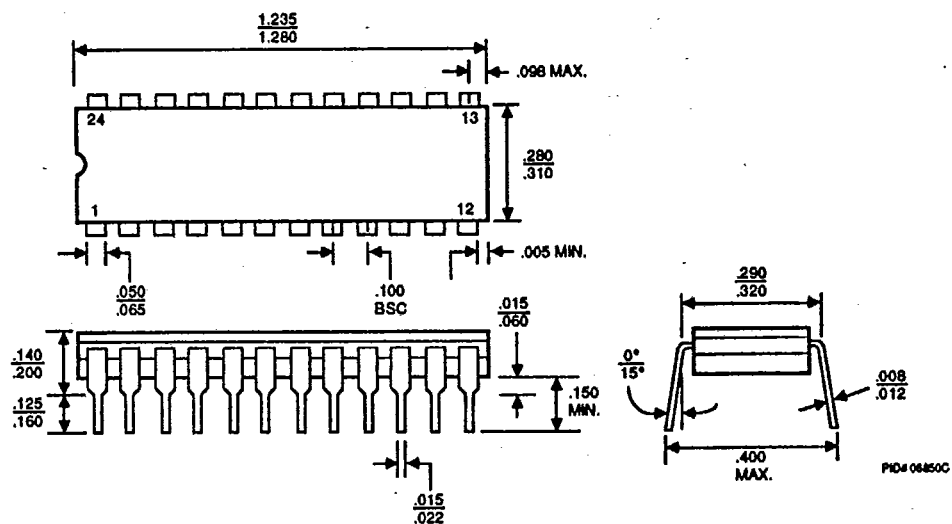
PACKAGE OUTLINES*

T-90-20

PD3024



CD3024

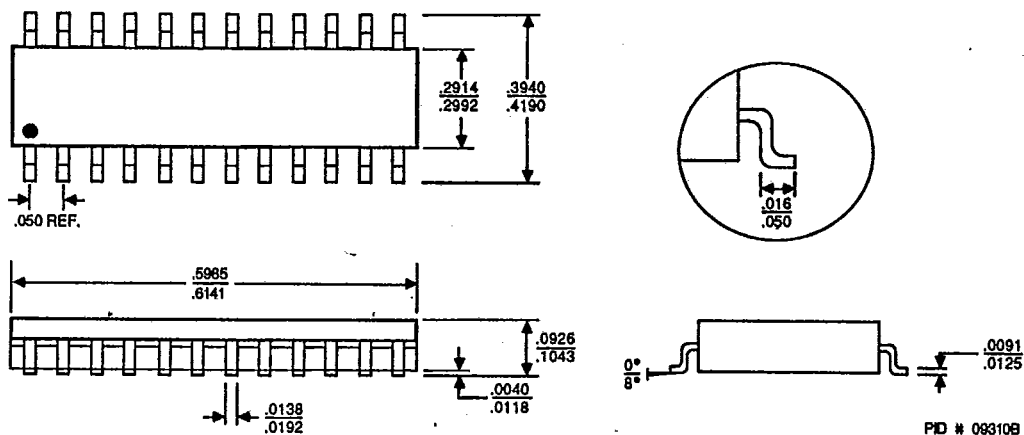


*For reference only.

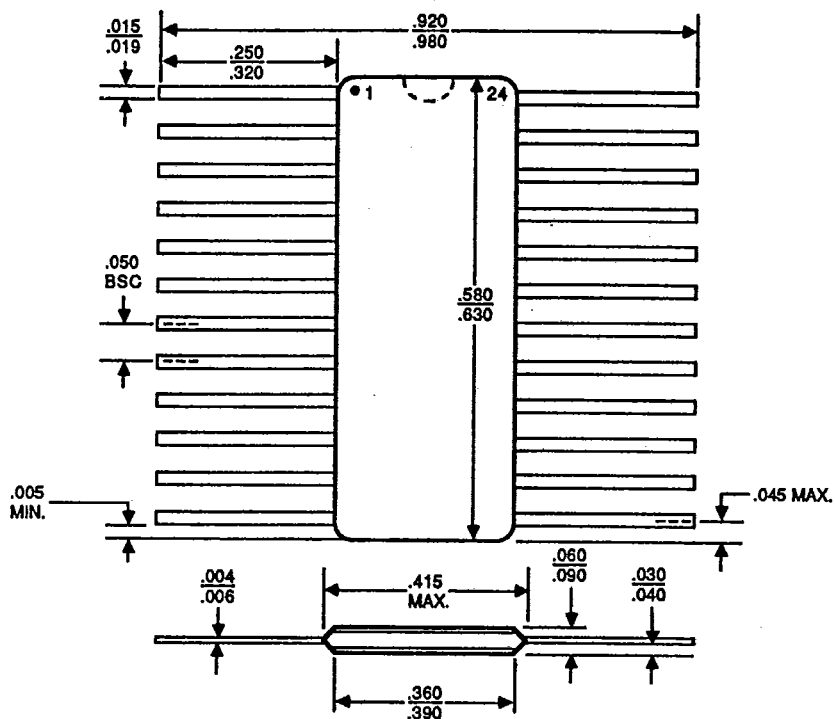
PACKAGE OUTLINES (Cont'd.)

T-90-20

SO 024



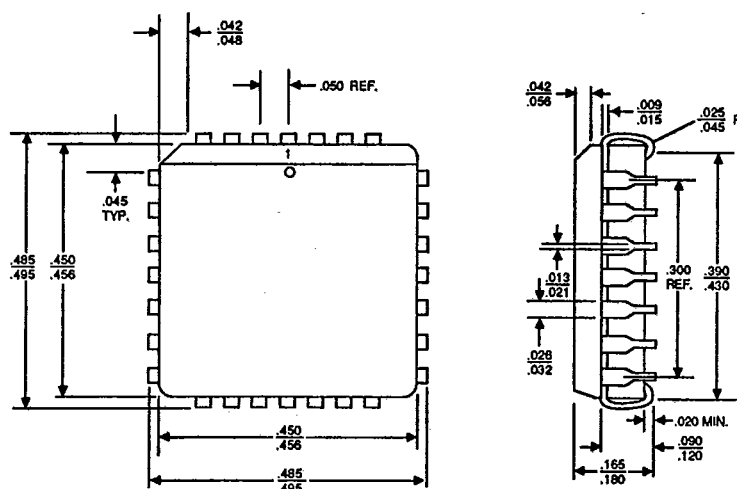
CFM024



PACKAGE OUTLINES (Cont'd.)

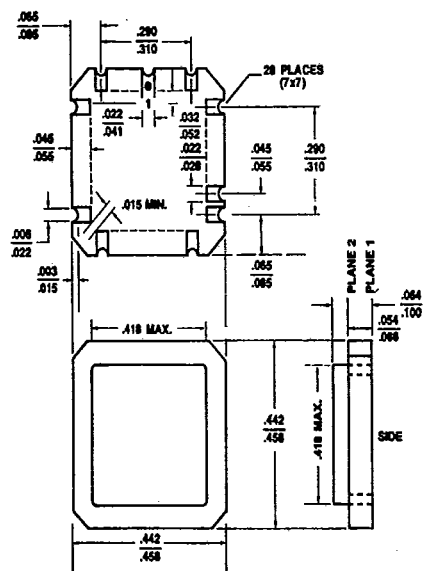
T-90-20

PL 028



PID # 06751E

CL 028



PID # 06595D

Advanced Micro Devices reserves the right to make changes in its product without notice in order to improve design or performance characteristics. The performance characteristics listed in this document are guaranteed by specific tests, correlated testing, guard banding, design and other practices common to the industry. For specific testing details, contact your local AMD sales representative. The company assumes no responsibility for the use of any circuits described herein.



ADVANCED MICRO DEVICES 901 Thompson Pl., P.O. Box 3453, Sunnyvale, CA 94088, USA
TEL: (408) 732-2400 • TWX: 910-339-9280 • TELEX: 34-6306 • TOLL FREE: (800) 638-8450

© 1988 Advanced Micro Devices, Inc.
Printed in U.S.A. AIS-WCP-20M-01/88-0